

# PACIFIC GAS AND ELECTRIC COMPANY

PG&E

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J. O. SCHUYLER  
VICE PRESIDENT  
NUCLEAR POWER GENERATION

September 27, 1983

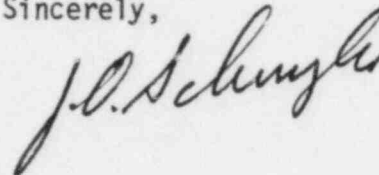
Mr. John B. Martin, Regional Administrator  
U. S. Nuclear Regulatory Commission, Region V  
1450 Maria Lane, Suite 210  
Walnut Creek, CA 94596-5368

Re: Docket No. 50-275, OL-DPR-76  
Docket No. 50-323  
Diablo Canyon Units 1 and 2  
IE Inspection Report 83-24/83-17 -- Notice of Violation

Dear Mr. Martin:

NRC Inspection Report 83-24/83-17, dated August 26, 1983,  
included a Notice of Violation (Severity Level IV). PGandE's response to  
this Notice is enclosed.

Sincerely,



Enclosure

cc: Service List

8310200183 831014  
PDR ADOCK 05000275  
G PDR

## ENCLOSURE

### RESPONSE TO NOTICE OF VIOLATION NRC INSPECTION REPORT 50-275/83-24 and 50-323/83-17

On August 26, 1983, NRC Region V issued a Severity Level IV Notice of Violation ("Notice"), as part of NRC Inspection Report 50-275/83-24 and 50-323/83-17 on Diablo Canyon Units 1 and 2. The Notice cited a concern that three (3) pipe supports and one (1) electrical raceway support, which had been installed, examined, and accepted by contractor Quality Control, did not fully meet the requirements of procedures, instructions and drawings.

#### STATEMENT OF VIOLATION

"10 CFR 50, Appendix B, Criterion V, as implemented by Section 17.1.5 of the FSAR and the PGandE Quality Assurance Manual Section V states in part that, 'Activities affecting quality shall be prescribed by documented instructions, procedures, or drawings ... and shall be accomplished in accordance with these instructions, procedures, or drawings ...'

1. Pullman Power Products, Engineering Specification Diablo (ESD) Number 253 states as follows:

Paragraph 6.4.3.3, 'That Field Q.C. Inspector shall verify that all locknuts are in place and tight and that there is full thread engagement at all connections,'

Paragraph 6.4.2.3, 'All nuts shall be tightened to the snug tight condition. Torquing shall not be required except where specifically noted on the drawing,' and

Paragraph 6.5.3.3 states that 'Field QC Inspector shall inspect these installations applying tolerances indicated in other sections of this specification (e.g., weld sizes, gaps, etc).'

2. Howard P. Foley, Quality Control procedure, QCPE-9 for 'Installation of electrical raceways, junction and terminal boxes,' states as follows:

Paragraph 4.7.8, 'Where applicable, concrete anchor connection to surface may be replaced with bolted connection (size of bolt to be the same as anchor) to embedded unistrut, or thru bolts (see detail S-68) to Class I concrete block wall, or stud...'

Paragraph 4.7.7, 'Hex nuts on new installations shall be a minimum of one (1) full thread past the end of the bolt (Reference 050029 Misc. Ncte 27).'

Contrary to the above, during inspections on July 11-29, 1983, the following conditions were identified:

1. Unit 1 Pipe Support Number 46-9V

There was no locking device on top of the spring can. The turnbuckle was not equipped with locknuts at top or bottom. The threaded rod at the top of turnbuckle did not have full thread engagement.

2. Unit 2 Spray Ring Support Number 20-94R

A nut and bolt assembly on a T-shoe clamp was found to be loose (only finger tight) and a one inch thick metal wedge was forced in the horizontal gap and taped in place.

3. Unit 2 Spray Ring Support Number 414-43R

The nut on each of two large bolts on the bridge beam of this assembly were found to be loose (finger tight).

4. Unit 1 Electrical Raceway Support H 115-6-105

A washer and nut were found to be missing from thru-bolt which secures S-6 brace to Class I concrete block wall."

STATEMENT OF EXPLANATION

1. Unit 1 Pipe Support 46-9V

This support was modified after construction completion and Contractor Quality Control acceptance. This modification was performed to accomplish construction activities other than Pullman Power Products pipe support work in the immediate vicinity of this support. This modification work was not in compliance with Pullman Power Products ESD 253 Paragraph 5.7 which establishes the method for working on previously accepted pipe supports.

2. Unit 2 Spray Ring Supports 20-94R

This support was loosened and a temporary wedge inserted by the pipe support crew to facilitate modifications to another support on the same spray ring. Modification of this support was not in compliance with Pullman Power Products ESD 253 Paragraph 5.7 which establishes the method for working on previously accepted pipe supports. Had this procedure been followed, restoration to its previously accepted condition would have been achieved.

3. Unit 2 Spray Ring Support 414-43R

This support had been loosened by the pipe support crew to facilitate modification to another support on the same spray ring. Two loose nuts were discovered by the NRC, and one additional loose nut was discovered by Pullman Power Products Quality Control. Modification of this support was not in compliance with Pullman Power Products ESD 253, Paragraph 5.7, which establishes the method for working on previously accepted pipe supports. Had this procedure been followed, restoration to its previously accepted condition would have been achieved.

4. Unit 1 Electrical Raceway Support H 115-6-105

The design issued for modification of this support required the addition of a typical S-6 brace attached to a concrete wall using a concrete expansion anchor. Field conditions, however, required mounting to a concrete block wall. Drawing 050030, Note 19, did not clearly specify the use of a through bolt when mounting a raceway support to a concrete block wall.

This support was removed, welded on a work bench and reinstalled. Upon walkdown inspection, the Q. C. inspector, due to the DCN sketch, interpreted that the raceway support was attached with a concrete expansion anchor. Therefore, that inspector had no reason to inspect the back side of the concrete block wall to determine if a through bolt had been used and the nut and washer were properly installed.

CORRECTIVE STEPS TAKEN AND RESULTS ACHIEVED

1. Unit 1 Pipe Support 46-2"

The discrepancy was documented on Pullman Power Products Discrepancy Report 5265. Pullman Power Products Quality Control has verified that all locking devices exist on both spring cans and turnbuckles and that proper thread engagement has been achieved on the left turnbuckle. Field construction management issued a memorandum to all Contractors emphasizing the requirement that modifications to pipe supports shall only be performed by Pullman Power Products personnel.

2. Unit 2 Spray Ring Supports 20-94R

Discrepancies have been documented on Pullman Power Products Discrepancy Report 5090. The temporary wedge has been removed and the nuts tightened, and Pullman Power Products Quality Control has verified proper installation. A Pullman Power Products memorandum has been issued to Pullman Power Products Quality Control inspectors to apply "Torque seal" to fasteners, after verification of tightness. This will make it readily apparent that fasteners have been checked for tightness and accepted and will provide a visual means to determine if fasteners are subsequently loosened. Field construction management has issued a memorandum to all Contractors emphasizing the requirement that modifications to pipe supports shall only be performed by Pullman Power Products personnel. Field construction management has also issued a letter to Pullman Power Products stating that ESD 253 shall be complied with when modifications are required to supports that have been previously accepted by Quality Control.

3. Unit 2 Spray Ring Supports 414-43R

Discrepancies have been documented on Pullman Power Products Discrepancy Report 5238. The nuts have been tightened and Pullman Power Products Quality Control has verified proper installation. A Pullman Power Products memorandum has been issued to Pullman Power Products Quality Control inspectors to apply "Torque seal" to fasteners, after verification of tightness. This will make it readily apparent that fasteners have been checked for tightness and accepted and will provide a visual means to determine if the fasteners are subsequently loosened. Field construction management has issued a memorandum to all Contractors emphasizing the requirement that modifications to pipe supports shall only be performed by Pullman Power Products personnel. Field construction management has also issued a letter to Pullman Power Products stating that ESD 253 shall be complied with when modifications are required to supports that have been previously accepted by Quality Control.



4. Unit 1 Electrical Raceway Support H 115-6-105

The missing nut and washer on raceway support H 115-6-105 were documented on H.P. Foley NCR 8802-881 R1 and have been reinstalled, inspected, and accepted by H.P. Foley Q.C. A reinspection of all Unit 1 Class I raceway supports installed on concrete block walls has been completed to ensure that through bolts were used and installed properly. Training on concrete block wall raceway support mounting requirements has been given to the Q.C. personnel involved in the inspection of electrical raceway supports. A design change request, DCO-GE-15315, has been approved by Engineering and submitted to the Plant Staff Review Committee for concurrence clarifying the requirements of Drawing 050030, Note 19. The note now specifies that through bolting shall be used when mounting Class I raceway supports to concrete block walls. The Support Inspection Work Sheet for raceway supports has been modified to incorporate a check list item for checking that through bolts are used and are properly installed when mounting a Class I raceway support to a concrete block wall. In addition, a memorandum has been issued requiring through-bolt installation be specified on the Work Traveler when Class I raceway supports are installed on concrete block walls.

In investigating the installation of raceway supports on concrete block walls, the design requirements for the use of through bolts in Class I instrumentation, HVAC and piping supports were also reviewed. A review of the design for Class I HVAC and piping supports shows that the use of through bolts when mounting to concrete block walls is specified. The design requirements for mounting instrumentation supports on block walls were not clearly defined, but have been clarified by Engineering. A walkdown of all Unit 1 concrete block walls has been performed based upon this clarification to ensure that all Class I instrumentation supports have through bolts installed.